

**REMARKS**

Claims 9-20 are pending. Claims 9, 15 and 17 are amended herein.

Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

**I. REJECTION OF CLAIMS 9-20 UNDER 35 U.S.C. § 112, SECOND PARAGRAPH**

Claims 9-20 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Applicants respectfully disagree, however, in order to facilitate prosecution in this application, both claims 9 and 17 have been amended to further clarify the invention. More particularly, claims 9 and 17 recite that the bottomwall and sidewall junctions are defined by the source/drain regions in the substrate. Therefore claims 9-20 are believed to be definite. Accordingly, withdrawal of the rejection is respectfully requested.

**II. REJECTION OF CLAIMS 9, 11-17 AND 19-20 UNDER 35 U.S.C. § 103(a)**

Claims 9, 11-17 and 19-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,792,699 (Tsui), in view of U.S. Patent No. 5,898,202 (Fulford, Jr. et al.). Withdrawal of the rejection is respectfully requested for at least the following reasons.

- i. Tsui does not disclose a bottomwall/sidewall capacitance reduction region extending within and between the source and drain region that extends partially through the bottomwall junction thereof, as recited in claims 9 and 17.*

Claims 9 and 17 each recite a bottomwall/sidewall junction capacitance reduction region that extends *at least partially through the bottomwall junction* of the source and drain region. Tsui does not teach this feature, as will be further appreciated below.

Tsui discloses a transistor structure that has a threshold voltage adjustment/punch through barrier region 4, 9 that is formed by an implant 3, as illustrated in Fig. 4c and described in Col. 5. As specifically set forth in the text (Col. 5, lines 59-61), Tsui forms the region 9 below the source/drain junctions, as illustrated in Fig. 4C. Therefore the region 9 does not extend at least partially through the bottomwall junction of the source and drain region as claimed. In addition, Fulford, Jr. et al. do not remedy the deficiency in Tsui, and thus claims 9 and 17, along with their corresponding depending claims are non-obvious over the cited art. Accordingly, withdrawal of the rejection is respectfully requested.

*ii. The combination of Tsui and Fulford, Jr. et al. do not teach or suggest a dopant concentration of the bottomwall/sidewall junction capacitance reduction region peaking substantially at the bottomwall junction, as recited in claim 15.*

Claim 15 recites that the dopant concentration of the bottomwall/sidewall junction capacitance reduction region peaks substantially at the bottomwall junction of the source and drain regions. As highlighted above, the region 9 of Tsui is below the source/drain bottomwall junctions. Since the peak concentration is most likely in the center of the region 9, such peak is clearly below the bottomwall junction and is not substantially at the bottomwall junction as claimed. Further, Fulford, Jr. et al. do not remedy the deficiency in Tsui. Therefore claim 15 is nonobvious over the cited art for at least this additional reason. Accordingly, withdrawal of the rejection is respectfully requested.

**III. REJECTION OF CLAIMS 10 AND 18 UNDER 35 U.S.C. § 103(a)**

Claims 10 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Tsui in view of Fulford, Jr. et al. and U.S. Patent No. 6,781,194 (Baliga). Withdrawal of the rejection is respectfully requested for at least the following reasons.

As stated above, the combination of Tsui and Fulford, Jr. et al. do not teach the inventions of claims 9 and 17, respectively. Claims 10 and 18 depend upon claims 9 and 17, respectively, and Baliga does not remedy the deficiencies in the primary references. Therefore claims 10 and 18 are non-obvious over the combination of cited art for at least the same reasons. Accordingly, withdrawal of the rejection is respectfully requested.

**IV. CONCLUSION**

For at least the above reasons, the claims currently under consideration are believed to be in condition for allowance.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should any fees be due as a result of the filing of this response, the Commissioner is hereby authorized to charge the Deposit Account Number 20-0668, TI-32513.1.

Respectfully submitted,  
ESCHWEILER & ASSOCIATES, LLC

By



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CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Assistant Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: January 5, 2006



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Christine Gillroy